





*To Leffner  
With the respects of W. Holmes*

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DR. HOLMES'S

INTRODUCTORY LECTURE,

DELIVERED BEFORE THE

MEDICAL CLASS OF HARVARD UNIVERSITY,

NOVEMBER 3, 1847.

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AN

# INTRODUCTORY LECTURE,

DELIVERED AT THE

MASSACHUSETTS MEDICAL COLLEGE,

NOVEMBER 3, 1847.

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By OLIVER WENDELL HOLMES, M. D.

PARKMAN PROFESSOR OF ANATOMY AND PHYSIOLOGY.

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BOSTON, NOVEMBER 8TH, 1847.

*To the Professor of Anatomy and Physiology in Harvard University.*

DEAR SIR:—At a Meeting of the Members of the Medical Class, holden on the sixth instant, it was unanimously *Voted*, "That a Committee be appointed to request, for publication, a copy of the Introductory Lecture, delivered by yourself, at the opening of the present session."

In accordance with this vote, we take pleasure in soliciting the manuscript at your earliest convenience.

ROBERT W. OLIPHANT, }  
C. ELLIS, } COMMITTEE.  
SAM'L L. BIGELOW, }

DR. O. W. HOLMES.

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BOSTON, NOVEMBER 9TH, 1847.

GENTLEMEN:—It gives me much pleasure to comply with the request of the Class for a copy of my Introductory Lecture, for publication.

Accept my acknowledgments for the politeness with which this request was conveyed by yourselves, as the Committee of the Class, and believe me,

Very sincerely, your friend,

O. W. HOLMES.

MESSRS. ROBERT W. OLIPHANT, }  
C. ELLIS, } Committee.  
SAM'L L. BIGELOW, }





## INTRODUCTORY LECTURE.

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THE season of the falling leaf, which suspends many of the busier occupations of industry, is chosen by this and numerous similar institutions as the period of their renewing labors. All over the wide land, the stir of preparation is beginning among teachers and scholars; the dust is beaten from old manuals; the lecture-room is swept and garnished; the country physician puts up his own prescriptions, and sets off lonely upon his cheerless ride, while the swarming students, gathered in the great centres of instruction, are just looking around them, dizzy with all they see and hear amidst the Babels of sight and sound into which they have ventured. As the portals of each temple of science are thrown open to its approaching multitudes, it is customary for some one among those to whom they are consigned, to come forward with a formal greeting, to give them a kindly welcome in the name of all with whom he is associated, and to say

some words, at least, which shall have a more general bearing, and be touched with a warmer tint, than belong to the daily scholastic exercises which are to follow.

The Medical Faculty of this University has laid upon me the duty of thus bidding you cordially welcome, and addressing you and those friends who share your seats, such thoughts as may seem a fitting preface to the course we are just beginning together. I might have hesitated to accept this office, on the ground that I hold this chair subject to the voice of an honorable body, to whom my election has not yet been submitted ; but, trusting to the harmony of action which has so long prevailed in the various departments of administration of the University, I shall venture to speak as if I were one of its fully recognised servants.

Having consented to accept this position, I find no little embarrassment in the many subjects of deep interest which seem to demand at least some partial consideration. There are points connected with medical education, and the general state of the profession, which cannot be wholly passed over, in view of the important movements with regard to both which have agitated the public within the past year. The position of our Institution, and the state of opinion and feeling in this medical community, suggest many thoughts having reference to our local interests, which, for being local, are not less essential in their bearing on medical science, as well as on those engaged in practising and teaching. My own entrance upon a new office invites me to give some idea of the feelings and intentions with which I take up the duties it involves. Lastly,

the recent changes in this University have been accompanied with so much that calls for grateful recollection, that it would be false delicacy to pass over in silence the names and deeds of the benefactors to whom we are so deeply indebted. Those who have fairly earned the gratitude of their contemporaries and of posterity must not refuse to accept its manifestation, unless they would check the natural expression of feelings which it is a right, a pleasure, and almost a necessity to clothe in language. Through this varied series of subjects my discourse must be allowed to pass in succession ; skirting the edge of one, saturating another, perhaps overflowing a third, but maintaining its continuousness of current as far as may be in the midst of so many unavoidable bends and angles.

Within the past year, the medical practitioners of this country have organized themselves into one great league, the most extensive ever formed in any profession, embracing half a continent in its vast organization. Various important changes have been proposed in its conclaves, which promise to exercise a great and permanent influence on the welfare of our science, its practitioners and teachers. Of these measures, some commend themselves to all ; others are more or less extensively questioned ; and others have called out strong dissent and opposition. In the commencement of so great an undertaking there must be errors committed and steps taken which mature revision will rectify and retrace. I have no intention of choosing this occasion to criti-

cise any of the particular measures adopted in an assembly conducted with the highest dignity, and whose chief movers were evidently actuated by the most honorable motives. But it is a point of consequence that, throughout the whole land, and from all our institutions, the voice of hearty sympathy, and the hand of ready coöperation should be extended to this new organization, which promises the most extended benefits to the profession of our ever growing republic.

This was a movement looked upon in some places with fear and suspicion ; it was thought to be the first cloud of a great storm of public opinion ; the first gun of a destructive revolution, which, with the *tricolore* and the *bonnet rouge* over its ranks, and the terrible *ça ira* playing in front, was to go sweeping through the country. The same belief called out many in talk and some in print, who gave vent to their private griefs and dissatisfactions, as if the time had arrived when an outraged people was about to finally exterminate all dull Professors, all superannuated dignitaries of over thirty, all who held established offices and carried smiling faces, every body, in short, who, as Jack Cade has it, let his horse wear a cloak, while honest men went in their hose and doublet.

It was a total misapprehension of the meaning of this great national project. If the feeling in which this originated were truly stated, it would be found that it was a result of the institution of *inferior medical schools*, situated in the wrong places, and managed by the wrong men, and the consequent cheapening and vulgarizing of education, until the degree of doctor of medicine has, in some parts of our country, ceased

to be an evidence of a decent amount of knowledge on the part of those who possess it. The honorable and thorough bred practitioner found himself shouldered by ignorant novices claiming to be his equals, who had never devoted half the allotted period of pupilage to study, who had never touched a scalpel, who had never seen a hospital, and in the face of an easy public, apt to take men at their own valuation, and having no proper means of discriminating between them.\* Such, I believe, was the original mainspring of the movement, but other and most useful designs have been superadded to the principal one of raising the degenerated standard of education. Among them are the thorough union and organization of the profession, the establishment of an elevated code of ethics, and the pursuit of various inquiries in concert by physicians of different sections of the country.

There are two great objects, then, aimed at by the National Medical Association: one may properly be called *Reform*; it implies the previous existence of abuses, and casts a reproach upon all to whom its measures apply, for doing some wrong, or neglecting some duty. The other is *improvement*, and this it may be presumed every body and association in the country, like every individual person, is capable of, and will find ample room for, if it is urged upon them. Now, I

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\* It is a little remarkable that on the morning after these words were written, I received a letter from one of the great states of the distant West, containing the following sentences, "We have several miserable apologies for medical schools in this state, which by cheapening the rates of instruction induce many young men of limited means to attend their lectures. The consequence is that we have many among us who flourish an M. D., and yet are ignorant of the elementary principles of Medical Science."

believe I may say with confidence, that neither this community nor this institution are obnoxious to any charge that calls for the agency of *reform* as that word is commonly intended. We *reform* the victims of habitual intoxication, but if we induce a strictly temperate person to become more severely abstinent, we may call it improvement if we will, but not reformation. Our medical community was already thoroughly organized ; an ethical code, in most respects identical with that adopted by the National Convention, had been in action here for a long series of years ; a general state of harmony and an enlightened public sentiment were already prevalent. In this University there was a full complement of instructors ; the first of all requisites, clinical teaching, was thoroughly attended to, and the full period of study, as I once learned to my infinite inconvenience, always rigorously insisted upon.

Let us distinguish, then, between reform and improvement. We can all improve, let us hope that we do not all stand in need of reform. The word becomes offensive and impertinent when used too freely. It has the effect of the crack of a whip in a pasture full of quiet and contented animals. The peaceful creature who was solely intent upon his thistle, looks up and gives loud utterance to his impressions, and the unshod colts throw up their foolish heels into the air as if there were to be an end of all slow coaches from the date of their superfluous gambols.

Names are things, however lightly they are used ; a good hit from the *lingualis* is often harder to bear than a blow from the *triceps extensor*. But there are certain phrases, and this is one of them, that are becom-



ing unfit for circulation in good society, except in cases of extreme necessity. The mention of this word has come in a great proportion of cases to signify simply this; that there is something to sell in the place that it comes from. It was no doubt a burst of virtuous indignation which called upon the suffering community to "Reform its Tailors' bills," but if an infuriated mob should collect around the placard to carry out its motto, it would be the part of wisdom to remind them that the same sign which calls for indignation against tailors in general, invites them to visit the owner's establishment in particular! If ever any attempt should be made to disorganize and disunite the profession, to throw discredit upon all that it has learned to respect, to elevate the untried, the doubtful, the suspected, at the expense of those who have grown old in serving the public, it will probably herald itself under the imposing title of Reform. Such a stroke of policy may do well enough for that sedentary and fractional portion of the community which clothes the outward man in his habiliments, but if it is to be introduced among those who are to weave the garments of knowledge for the unclad minds of the coming generation, let us return to the pole and basin, and forget that during a certain interval we have belonged to a liberal profession!

I would not deny that there are great defects in our medical character and conduct. As individuals each must answer for himself. In our profession, as in every other, there must be a minimum of capacity and efficiency somewhere, but if each of us do his best not to be its unfortunate representative, he can hardly be the subject of public censure. But there are other points

of view in which we might find place for sterner criticism.

It is necessary to allude to that literature of title pages, which has multiplied to such an unparalleled extent among us — which is the cause that of the names generally known throughout this country, a very large proportion owe their notoriety to the fact that they are printed in staring capitals on the face of popular books, to the success of which they were as unnecessary as their owners were useless to the work they pretended to improve with their “notes and additions?” Nothing can show more forcibly the miserable trading spirit which presides over our medical book-making, than the history of a wood-cut, as I have often had the curiosity of tracing it. Originally taken from some English work, perhaps first appearing in a reprint of it, it is reproduced over and over again, in place and out of place, in treatise after treatise, manual after manual, as long as the block will hold ink enough to blur the page which it serves to fill up. In this way the student has to pay many times over for that which he already possesses, while the publisher is enabled to flourish in his advertisement about his twenty or his fifty additional illustrations. These things might not be worth mentioning if they had not come to be a substitute for everything like investigation and genuine labor. So long as our horticulture consists in grafting the worst shoots of the American crab upon the best stocks of the English pippin we shall never have any native fruit worth gathering.

I forbear to dilate upon the character of too many of our medical periodicals. Let us hope the time will



come when their pages will be refused to all anonymous flippancies, and unmanly gossip, and above all to those worrying paragraphs, which keep up a kind of fretfulness in their occasional readers.

It would hardly be becoming to say much respecting the great grievance of imperfect education, which has been already alluded to. It is hard to touch upon it without mingling some selfish feelings with our comments. This is a free country, as has been often said, and in pursuance of the maxim, various liberties have been taken by our enterprising citizens. Some are fond of property and some of titles ; the spirit of freedom adapts itself to circumstances, and the “ vote yourself a farm ” of politics becomes “ vote yourself a chair ” in science. The extreme and rapid multiplication of medical schools has certainly had its use in educating the teachers, if not the students, and perhaps in giving a little training to some of those who might have gone into practice without any. I need not say what bad consequences it has had ; I have hinted at them already, and the country is full of loud complaints on the subject. So long as the moderate compensation of the teacher is an inducement to unemployed young men ; so long as the poor title, bestowed upon every itinerant who juggles a living out of the pseudo-sciences, can tickle the ears of half-taught practitioners, will legislatures be teased to grant charters for new schools, not only uncalled for by any public want, but tending directly to lower the standard of education. Competition is a good thing in its place, but it has blown up hundreds of poor wretches who trusted themselves in Western steamboats ; and if suffered to run riot through

our medical institutions they will be true to the parallel of hot fires, thin boilers, close valves and their inevitable consequences. There is a natural fitness of circumstances that might be regarded with some advantage. Men do not establish factories on hill-tops, where the water that turns the wheels must all be pumped up by hand. They do not organize infant schools in diving bells, where the light is to be let in through a bull's eye, and the air to be sent down in demijohns. Rivalry in medical institutions must always exist, but this business of underbidding and under-feeding, this farming out of medical students, like town paupers, to the lowest contractor, must eventually be arrested. If the law cannot do it by the necessary discrimination, organized public opinion can and will do it. And the time must come when those institutions which cannot by any possibility afford practical instruction in the most important branches of the profession will cease to be recognised as capable of giving a full title to public confidence. It is but the addition of three or four letters to those which designate the medical graduate, and the *Doctor Medicinæ Pennsylvaniensis* or *Harvardiensis* is as well known as the Parisian graduate by the title which he never fails to claim, and the equality which now confounds the most important differences is at once overthrown and abolished!

I turn from these general subjects to the consideration of some more purely local, having particular reference to this region, our own city, and our own institution. I shall consider it no serious reproach if I am thought to

dwell too complacently on the traits that seem deserving of approbation and the subjects of just pride. There is a kind of filial piety in celebrating the virtues which are the growth of our soil, and it is only when this is done in an exclusive or offensive manner that it is open to censure or ridicule.

There are many peculiarities in the medical character of this section of the country. Our position in New England, a little out of the broad current, our distinct origin, our hereditary habits, manifest their influence in the shades of professional as well as political character. We may expect to find the New Englander as cool, as shrewd, as practical in medicine as in business. But his peculiarities are best displayed in the medical teacher and the medical pupil. The first is singularly calm, simple and didactic, as compared with many of his distant brethren; the second cautious, sedate, respectful to a degree which the fiery children of the south would call tame and submissive. When the annual flowering of "Introductory Lectures" takes place, it may be seen that the colors are generally higher as the distance from the equator is less, and that the gayest display is from those that have had the advantage of the last rays of the setting sun; the efflorescence of scientific enthusiasm on the banks of the Mississippi or Missouri. Whether it be the coldness of Northern winds or the sterility of Eastern soil, there is less leaving out in proportion to the yield, and that of a less glaring aspect in our sober nurseries of knowledge than in those of our Southern and Western friends. Our danger is in the direction of sensible dulness, and theirs in that of glittering wordiness.

But there is one peculiar circumstance which has a great influence upon our practice, our teaching, and our whole medical faith. I mean the extraordinary exemption of New England from malarious diseases, which constitutes our section of country, to some extent, a natural pathological district. Many of the consequences which flow from this comparative immunity are obvious, when we contrast ourselves with the extreme South or West. The constant habit of dealing in specifics begets a strong faith in remedial measures. The sudden and deadly character of some of the malarious diseases creates a natural tendency to "heroic" practice, and accounts for an habitual boldness in the application of powerful agents which is reserved for exceptional cases in other latitudes. All these circumstances react upon the whole tone of thought; they modify the feelings, the style of talking and writing, the very bearing and physiognomy of the physician and the lecturer.

A country so diversified in soil and climate as ours, where the diseases which are the scourge of one region are hardly known in others equally extensive, cannot be expected to have a single centre of medical education. And were such a centre possible, it would naturally coincide more or less nearly with that of the population, and hardly seek either extremity of the Union for its locality. As a matter of history, we know very well that the widest representation of the whole country has always hitherto been found at the points of confluence which seem to hold out the most equal invitation to all quarters of the republic. And without indulging in any unworthy fears or jealousy,

let us be pleased to recognise in others those local advantages which they enjoy, and be thankful that they have done so well what they have had to do so largely. It is well to love the particular region of our early home and associations, but it is better that our love should be ample enough to embrace our whole country. And Science, of all things, should be freest from servile adherence to territorial limits ; Science, which, like the atmosphere, cannot exist in one place, without diffusing itself gently and gradually over others ; which passes the custom-house untaxed, and the fortress unchallenged, making friends of the remotest strangers, and brothers of those whom war has arrayed against each other.

The memory of the able and faithful members of the medical profession hallows many regions of our country, far apart, and often too ignorant of each other's claims. "In that early period of American Medical history," says Dr. Ramsay,—himself one of the most illustrious children of the South,—“which was before Rush began his brilliant career as an author, there were more experiments made, more observations recorded, and more medical writings ushered into public view by the physicians of Charleston, than any other part of the American continent.” The names of Lining, Chalmers, Garden, Bull and Moultrie, some of them still borne by those who shed honor upon the medical office, recall a generation of high bred scholars and ingenious writers, of which a young colony might well be proud.

And, coming nearer to our own region, shall we not linger with reverence and gratitude over the spot



where the philosopher, the patriot, the philanthropist, who so long represented the Medical Science of America in the eyes of civilization, sleeps among those whom he defended in the hour of political danger, and watched over in the dark season of the pestilence? The place where he labored seems to have inherited from him a zeal in the pursuit of knowledge, and an eloquence in imparting it, which have secured it the widest circle of influence ever possessed in any portion of the country.

Nor has that vast emporium, whose boundless commercial activity throws into the shade the trophies which would have made a less opulent city illustrious, been unhonored by names worthy of its greatness. Edward Miller, under whose pen, in the words of Broussais, "the phenomena of fevers and the mode of action of remedies have acquired an interest they had never possessed even in the most celebrated classical writings;" Samuel Bard, a model of the pure and enlightened physician, worthy to be named by the side of that Boerhaave whose character he so much revered; the learned, eloquent, accomplished Hosack, and the many able writers, whose labors gave dignity and interest to the pages of the New York Medical Repository, are enough to redeem the empire capital from the charge of being weighed down into mere worldliness by the golden burden of commercial prosperity. I forbear to speak of those who, in every portion of our land, have illustrated the department of operative surgery, for there is no part of the country where the natural ingenuity of our race has not shown itself in bold and inventive operators, so numerous

that Fame herself has hardly tongues enough to do them justice.

And now let us turn our eyes homeward for a few moments, not in the spirit of unkindly criticism, but with a willingness rather to fall into the opposite error. We have a right to congratulate ourselves, first, on the general harmony and the good standard of opinion and sentiment prevalent in the profession. There may be here and there some uncomfortable feelings, for there can no more be a large community without malcontents than a season without clouds. Power, wealth, talent, office, cannot be so meekly borne as never to excite invidious feelings. It will happen that the patronage of the public, or the command of place falls into the wrong hands under every kind of management. Under every possible organization mediocrity sometimes succeeds and talent sometimes languishes unrewarded. The question always is, not whether the best conceivable arrangement exists, but whether, on the whole, the best kind of principles and of men is in the ascendant. Now is it not true that in this medical community the best class of men has generally given tone to its laws and manners? Has not good private character been universally recognized as the first requisite for any place of honor or profit? Have not such qualities as justice, generosity, courtesy, been conspicuous in those who have been most favored with public and professional confidence? Have not sound judgment, thorough education, and professional zeal been the common passports to success? If there can be but one answer to these questions, it would be truly pitiable if any should be found base enough to take advantage of a movement,

directed against grievances with which we are practically unacquainted, to disturb the rare and enviable tranquillity we have enjoyed. The waters of peace have flowed free and sparkling by our doors for many long years ; it is possible to render them turbid by hard raking in the depths over which they lie ; whose is the first hand to be lent to this ignoble office ?

The medical history of this city and of its institutions has many points of interest. I believe an individual may be found here and there who supposes that this particular region, though containing many sensible men and good practitioners, has always been a little behind some others in the march of medical improvement. It may be well to look at this impression somewhat more closely. It is our right, and it should be our pride to count over the honorable treasures which are our inheritance. If there is among the young men who hear me one whose mind has been poisoned by any thoughts that do injustice to the spot to which he belongs, I ask him, before he becomes a voluntary alien to his own hearth-stone, to bear with me in a slight repetition while I recall a few circumstances in its history.

Here, in this very place, or in its immediate vicinity, all the greatest practical improvements in the art of healing since the discovery of this continent have had their point of departure for the circuit of the Western world. Here, more than a century ago, when the British government was pardoning felons that they might be subjected to inoculation, a Boston physician submitted his own son to the doubtful and then terrible trial, which ended in establishing the practice throughout



the country. Here, at the close of that same century, the blessed gift of Jenner to humanity was borne to our hemisphere by a teacher in this institution. Here, almost within the present year, the unborrowed discovery first saw the light, which has compassed the whole earth before the sun could complete his circle in the zodiac. There are thousands who never heard of the American Revolution, who know not whether an American citizen has the color of a Carib or a Caucasian, to whom the name of Boston is familiar through this medical discovery. In this very hour while I am speaking how many human creatures are cheated of pangs which seemed inevitable as the common doom of mortality, and lulled by the strange magic of the enchanted goblet, held for a moment to their lips, into a repose which has something of exstasy in its dreamy slumbers. The knife is searching for disease, the pulleys are dragging back dislocated limbs, nature herself is working out the primal curse which doomed the tenderest of her creatures to the sharpest of her trials, but the fierce extremity of suffering has been steeped in the waters of forgetfulness, and the deepest furrow in the knotted brow of agony has been smoothed forever.

The fullest ear does not often come out of a lean field. If any prize is taken over and over again by boy or man, by corn or cattle, it is to be presumed that there is some permanent reason for success. It was because there were learned scholars and open-minded inquirers here in the year 1721, that inoculation was first introduced in this city. If there had been no busy readers like Cotton Mather, poring over the *Philosophical Transactions*, the new discovery would

not have been heard of. If there had been no ingenious and highly educated physicians in intimate relation with the scholars of their time, it would not have been put in practice.

It was because our medical men were in the habit of keeping up close communication with the science of Europe that the second great discovery was first introduced in this place. And mark this fact with regard to both these discoveries, that the profession and the public kept steadily on with them both, while the most discouraging accounts were received from other parts of the country.

Dr. Adam Thompson stated, in 1750, that inoculation was so unsuccessful in Philadelphia that many were disposed to abandon the practice. The vaccine matter sent on from Boston to New York would not produce the genuine disease in the hands of Dr. Miller, and the numerous failures, owing, as it is stated, to "spurious matter in some instances, and want of skill and experience in the operator, in others," had thrown discredit upon this most beneficent of human discoveries. It was the united and persevering action of the Massachusetts Medical Society, the Boston Board of Health, the towns of Milton and New Bedford, and, finally, the Legislature of this Commonwealth, that triumphed over timidity and scepticism, and led the way to its final adoption throughout the country. And, strange to say, the same thing has been repeated in a still more striking manner for the third time in the case of the ether. Has there been one moment's doubt or backwardness here since the first decisive experiments, while the tardy, languid, faint-hearted

assent is sweating out drop by drop from the reluctant pores of those whom many have thought to lead the foremost van of medical improvement?

No, Gentlemen! We must not be unjust to ourselves for the sake of liberality to others; nor believe that because the drudgery of medical compilation is not made a trade of here, or because the names of half our faculty are not gilded over the sprinkled sheep-skin which holds the thoughts and words of other men, we are therefore the last in the long procession of Science.

The profession here has always been remarkable for its early adoption of the real improvements in our art. Were I to claim for one of our own physicians the first distinct recognition of the digestive organs as the centre of a large proportion of diseases, and the origination of that practice which long afterwards gave celebrity to Hamilton and Abernethy, I might be accused of audaciously usurping the credit belonging to others, to bestow it on a fellow-citizen. But if I cite such a statement from a Professor in the Parisian school of medicine, a theorist and medical historian known throughout the world of science, I am safe from the charge of partiality; and this is what the author of the *Examen des Doctrines Médicales* says of JOHN JEFFRIES, our distinguished practitioner of the last generation.

When the remarkable work of Corvisart on Diseases of the Heart called the attention of the medical world to that most important class of affections, in what part of the country were they first studied? A glance at Forbes's Bibliography will show that they

were written and published upon in this place years before they were the subject of notice elsewhere, — the first American publication concerning them being the paper of Dr. Warren, the Emeritus Professor of Anatomy and Surgery. Was auscultation taught any where in this country earlier than here? Who added the few discoveries that have been made in it on this side the Atlantic? Has pathological anatomy ever been so illustrated as it has been here? Has the numerical system produced in other places such papers as those upon typhoid fever and croup? Has the great doctrine of the natural movements of disease, which, mingled perhaps with some questionable opinions, has of late erected itself in England, under the name of Young Physic, ever been so nearly anticipated as in the Essay on Self-limited Diseases, delivered here ten years ago? And yet we have sometimes been slower than others to receive the systems which promised to regenerate the medical world. Fifteen years ago, the whirlwind of the so-called Physiological Doctrine swept over the country. It spun the weathercocks of taller steeples than ours, but when it had passed by, had we not a right to look up proudly at the golden vane of Northern judgment, which it was too feeble to swing round upon its pivot?

Standing upon this rocky and sterile soil, from which the November winds are wringing the last fluttering shreds of vegetation, and seeing how little Nature has done for it, I exult in the prosperity which industry and patience have won for its inhabitants. But could I believe that in the one department of human labor in which I am most profoundly interested, the spirit and

activity so characteristic of the people had given place to listlessness and torpor, I would strike off the letters at the end of my name, and try to forget a title which marked me as a dishonorable exception to the universal law in operation around me. I trust that the simple enumeration of the facts to which I have referred is enough to silence all such idle thoughts. It is in vain to attempt bringing down this capital to a mere secondary and provincial station in the realm of intelligence. The centres of nervous power are many in this vast republic, and the full sway of thought can be claimed by none,—not even the great abdominal ganglion that regulates so many of its organic functions. If there are any children of the soil who believe that they cannot find the proper food for their intellectual wants among us, let us bid them go elsewhere, in the cordial hope and belief that in many parts of our land there are abundant provisions for their instruction and improvement, but if they stay among us, let them avoid those foolish displays of petulance that force us to open our caskets with our own hands, and tell them to look at our jewels!

Among the institutions to which we have a right to look for maintaining and extending the intellectual advantages transmitted to us from the past, this University, by its venerable age, its rich endowments, its faithful services, its established renown, must hold a foremost station. Every member of the community is interested in the manner in which its concerns are administered; and there is no one of its servants, no matter how humble his office, who is not under heavy

bonds to the public for its due performance. The charge of qualifying young men for the important duties of the medical profession is among those which are committed to the direction of the University, by whose higher boards the teachers are designated who are to control the several branches of this department.

The duties of the office for which I have had the honor of being selected, are everywhere recognized as among the most important in the task of medical education. A knowledge of the structure and functions of the human body is the essential preliminary to all other branches of our science. The infinite variety of details involved in the study of these subjects has sometimes led to their complete separation as objects of teaching, and the devotion of a full course of instruction to each. This circumstance alone will show how heavily its weight of obligations will fall upon any single individual.

It becomes one who is about to accept a new office, to take a clear and broad survey of the qualities it will call for, and the manner in which its labors can be most efficiently and usefully performed. He cannot answer that he shall possess these qualities, or can perform these labors in the best way, but by showing what are his standards of duty and success, he gives the best pledges the nature of the case admits.

I believe that any man accepting a place of honor and profit in this ancient institution, should receive it not as a gift to be used for selfish ends, but as a sacred charge which he is to hold as a trustee for the benefit of others. I believe that he is bound, by the most solemn obligations, to the young men who trust some



of their dearest interests in his hands, to the University which lends him the authority of her venerable name, to the community by whom that institution is protected and cherished, and, above all, to the great Taskmaster who has granted him an honorable and grateful sphere of labor. And as he has received from others who went before him great facilities in the performance of his allotted task, so I believe that he is bound to do something for those that come after him, that each generation of teachers may find itself more amply provided with the means of instruction than the preceding.

The departments of Anatomy and Physiology are based on the pure study of Nature, and therein differ much from those of Practical Medicine and Surgery, which involve many considerations of a very different nature, many delicate relations and conflicting interests absolutely unknown to Science, properly so-called. What, then, are the qualities that the student of natural science should carry into his researches and instructions?

If one quality must be placed in advance of the others it should be *accuracy*. This is, to some extent, a natural gift; one in which individuals differ, as draughtsmen and artificers are found to differ in their intuitive perception of dimensions. The fine scientific sense is not very unlike the artistic element in painters and sculptors; it comes naturally, like an eye for color, or an ear for music, and can never be acquired by certain organizations. Those who have it recognize it in themselves and others; those who do not inherit it never know what it means. Like blind men, they

find that others walk freely, where they grope about ; but of the nature of the additional endowment which enables them to do so they have no notion. This is perhaps fortunate, for as the imperfection, like idiocy, differs infinitely in degree, and as every defect, idiocy even included, may be improved by education, it sometimes happens that assiduous labor overcomes the natural incapacity to a considerable extent. But I do not hesitate to say that there are cultivators of Science who would do better with their congenital disadvantages to direct their studies elsewhere, just as there are musical amateurs, who, if they could be weaned from the flute or violin, might unquestionably make a more effective and beneficent employment of their wind and muscle.

The quality which seems to be entitled to the next place, is *modesty in the presence of Nature*,—freedom from the egotism that comes between the mind and truth, like the film of impurity which prevents the mutual union of fusing metals ; which substitutes a reflected for a transmitted image, as the mirrored picture from a plate of glass often keeps us from seeing through it. How common this failing is in Science I need not remind you. The best are hardly free from it ; and many are so stained and vitiated by it, that their word, like a bankrupt's paper, is scarcely worth the trouble of protesting. I have placed modesty, rather than honesty, among the first requisites in the student of nature. A man may be honest, and yet eaten up by egotism and vanity ; but whoever has a deep reverence for truth, and feels his own personal nothingness in her presence, will no more violate her



sanctity, than the pious Catholic will steal her ornaments from the neck of the Madonna by the wayside.

And next diligence. This humble, but inestimable virtue is usually in some proportion to the love which is cherished by its possessor towards his particular pursuit. But it must be remembered that circumstances of health, of natural capacity for labor, and especially for long continued intellectual toil, will make a vast difference in the amount that may be accomplished by different individuals. Think for a moment of the uncounted labors of Aristotle in every branch of physical and intellectual science; of the almost endless writings of Galen, a mere index to whose works is one of the most formidable of folios; of the vast weight of erudition which Haller, the statesman, the poet, the physician, poised upon his Atlantean shoulders; the innumerable monuments of Hunter's industry, displayed in that magnificent collection which forms his noblest monument; the universal range of Cuvier over the wide creation, whose types he could almost have reproduced had they been effaced by some destroying convulsion; or, to come down to the living, of how much is effected in a single day of Owen or of Muller—I will not yield to the temptation of naming any who are nearer to us. Few can be expected to do as much as the illustrious men I have mentioned, but every one can take from them the lesson that whatever may be his natural endowments, it is only by severe and unremitted toil he can reach the higher summits of knowledge, and breathe the air of immortality that flows around them.

If there are the great requisites for the investigator

of nature in his study, the teacher should have all these and others besides. He must not only be correct, simple-minded and diligent, but it is essential that he should be clear in the exposition of his subject, and if possible, agreeable in his style and manner. If diseases should be remedied, according to the old maxim, *tuto, cito, jucunde*, whatever relates to their history and treatment should be taught, *accurate, perspicue, eleganter*.

No one of these qualities will be perfectly attained by any individual. In a subject like that which I am to teach, accuracy is only relative, there is much that must be taken on trust, and the counterfeit will sometimes necessarily be mingled with the sterling currency. Clearness in conveying instruction is the result of two kinds of knowledge; first, that of the subject to be taught, and secondly, that of the state of mind belonging to the learner. And here the teacher is placed between two difficulties, that of becoming tedious and vapid to the more advanced student, if he insist too much on the mere elements of his branch, and the inevitable alternative of shooting quite over the heads of those who are less cultivated or of humble capacity if he venture upon its higher problems. Without any hope of striking the exact mean between these opposite errors, my desire is rather to insist upon that which all can and ought to learn. And were it necessary to justify myself in so doing by the example of an illustrious teacher, who cannot be suspected to have been wanting in profound and difficult acquirements, I would lean upon the authority of Morgagni. “*In ea re tamen, memor ad quem scriberem, dedi operam, quantum*

potui, ne abstrusis, et arduis, sed obviis, planisque, neque singularibus, sed fere communibus uterer explicandi rationibus."

The power of lecturing agreeably depends much on natural graces ; but it must be remembered that there are subjects which not all the art in the world can do more than just render palatable. There are long tracts of descriptive anatomy, for instance, which it is out of the question to mould into eloquent paragraphs, without doing as great violence to the subject as Spornius, who turned his lessons of myology into a *car-men heroicum*. There are intrinsic difficulties in the task of the lecturer, whatever may be his subject or capacity. There are days, for instance, I appeal to every expert in this art and mystery, when some depressing influence takes the life out of one's heart and the words away from his lips, as there are others when his task is a pleasure ; — he lies at the mercy of fits of easy and of difficult transmission, controlled by subtle influences he cannot withstand. The memory sometimes neglects its duty, the imagination droops, the tongue will not perform its office, and as from an untuned instrument, a few discordant notes are all that can be obtained instead of the expected harmony.

A long course of lectures tries all the weaknesses of teachers and pupils. There is no little trick of the one, and no impatient habit of the other which will not shew itself before they part company. The teacher will have his peculiar phrases which soon become notorious and characteristic ; his gestures and movements more or less inelegant, his bodily infirmities, it may be, which he cannot disguise in the broad daylight

and the long hour. He will get the wrong word for the right, and so confuse the student of slow apprehension, amidst the whispered corrections of the more intelligent, he will fail to be understood when he thinks he has been clearest, and apologize when no one has suspected him of failure.

The student will have his hours of disgust and lassitude ; the cramped muscles will sometimes stretch out in ominous yawning, or some favorable corner will invite him to repose, and his senses will dissolve away in that sweetest of all slumbers, whose lullaby is the steady flow of didactic expatiation. All these weaknesses must be mutually pardoned, and for this both must have a permanent sense of the true relation of teacher and pupils, as friends, a little separated in years and in some points of knowledge, pursuing a common end, which one sees more clearly than the other, and therefore takes the lead in following, but which both see imperfectly, and which neither of them will ever completely attain.

A few words only as to the preparation I have made for the course we are just commencing. In the short time which was at my disposal, it seemed to me that my thoughts and efforts should be directed to some one broad, tangible, effective purpose, rather than exerted in a vain attempt to accomplish every thing in a single season. I selected one prominent object, out of many, and took for the motto of my first year the word *illustration*.

All the objects of anatomical research are visible ones, and many of the facts of physiology are capable of visible representation. I believe that the teacher

who merely talks about that which he might show to the eye or make palpable to the touch, fails to give that particular subject the clearness and permanency in the student's mind of which it is susceptible. I am pleased to find that the Professor of Surgery has been led to similar conclusions, as the splendid series of models he has recently presented to the College will testify, as long as its collections and instructions shall endure.

I have attempted, therefore, to render visible everything which the eye could take cognizance of, and so turn abstractions and catalogues of names into substantial and objective realities. This has been by means of enlarged drawings, diagrams and models, a few specimens of which are before you this morning. An experienced and faithful artist, has labored constantly for several months under my immediate eye, so that I have succeeded in providing a very extensive series of illustrations. A considerable portion of them relates to those points of structural anatomy which, from the minuteness of the objects, cannot by any possibility be exhibited to a large audience as they exist in nature. In their character, they vary from the simplest sketches or outlines to the most elaborate and highly finished paintings. Some of them are from works of great beauty and rarity, such as those of Albinus, Arnold, and Langenbeck, for which I am under obligations to the kindness of Professor Agassiz and of Dr. Lewis. I have ransacked every illustrated work I could find, from Vesalius to Bourguery; I have spared no man's library, and all have been freely open to the levy *en masse* which I have instituted. Nature, I have sometimes, but not often enough, copied; there will be time



for this, as I hope, hereafter, for there is a pleasure in tracing a portrait from the breathing original which the repetition of the best copy cannot equal. Of some of the models which I have had executed, I believe it may be said, that they are only rivalled by one previous set of similar character carved by the same ingenious artist.

These statements will, I trust, be pardoned, when it is remembered how heavy a task has been suddenly thrown upon me, and how anxious I must naturally feel to supply by diligence and the free employment of such resources as I could command, the inevitable deficiencies of my first year of labor in this institution. During the larger part of a century this chair has been occupied by men of such extended reputation that any adventitious aid was almost unnecessary to ensure the profound attention of those who sat at their feet for instruction.

JOHN WARREN, who originated and organized this medical school, and first taught Anatomy and Surgery as one of its Professors, was a man of admirable talents and rare attainments. At the early age of twenty-two years he had already become established in very extensive practice in the neighboring town of Salem, when the outbreak of the Revolution suddenly interrupted his prospects. That dreadful summer's morning which poured out upon the flowery turf so much of the purest blood of New England, mingled with that of her oppressors, took from him the beloved brother and instructor, whose name belongs to the history of freedom and the grateful memory of all coming generations. In the first moment of passion-

ate grief he would have thrown himself into the ranks as a private soldier, but his knowledge was too precious to be lost by such a sacrifice, and he was induced to remain in the army in his professional capacity. Sharing the dangers and trials of the war in its most disastrous period, he acquired the knowledge and skill which led to his appointment as surgeon of the military hospitals of Boston, and naturally gained for him the confidence of the public, so that he soon became the most eminent surgical practitioner of New England. He was led by these circumstances to the diligent cultivation of anatomy, and in 1780 he delivered a course of lectures on this subject, the first ever given in New England, with the exception of Dr. William Hunter's at Newport before the Revolution. These lectures were conducted with the greatest secrecy during the first year, but in the following year were made comparatively public, the senior class of Harvard College, among the rest, being invited to attend. This was the origin of the medical school, for which, at the request of President Willard, he furnished a plan of organization, and which went into operation in the year 1783. For more than thirty years he lectured before its classes on the subject of anatomy and surgery. Biography, and still more tradition from the lips of those who are now the elders of the profession, have kept alive the memory of his singular excellence as a teacher. Filled with the interest of his subject and anxious that all should follow his demonstrations, a natural liveliness and enthusiasm, a dignified person, a melodious voice, a fluent command of language, lent their attractions to his teaching, which is never men-

tioned by those who shared its privileges but in the warmest language of eulogy. I know not how often I have heard it said that the driest bone of the body would become in his hands the subject of animated and agreeable description.

Such was the first incumbent of this Professorship. His memory, vividly as it remains impressed upon the minds of his contemporaries, is naturally more faint in that of a new generation. Yet there is much to remind us of him even after so many changes as time has wrought since the close of his earthly labors. In the collection which fills our spacious hall are many monuments of his skill and industry ; his name would have been daily on our lips, had not a still longer life, one still more crowded with scientific and practical achievements, quenched in the broad light of the present the decaying splendors of the past.

I shall not anticipate the task of another at some future and, as we trust, far distant period, by enumerating all that is memorable in the public and professional life of my immediate predecessor in this office. But his long devotion to its duties, and the almost unparalleled fidelity with which in the midst of countless distractions he continued for year after year to give his hours to the students of science ; hours which no importunity could win and no gold could purchase ; these claims to our gratitude it cannot be indelicate to mention. And at the close of this life-long series of services, as he gave into younger hands the task which no premature infirmity had made too laborious for his own, the crowning act of liberality in bestowing his ample collections and the noble endowment



with which they were accompanied, cannot be passed over without one hearty and unstudied outbreak of the feelings, called forth by every generous act from every heart capable of any honest emotion. The wanderer among the monuments of the dead may read the following words upon the tombstone of the elder WARREN :

Medicus inter primos,  
Chirurgus facile princeps,  
Novangliæ  
Primam medicinæ scholam  
Ipsius laboribus fundatam,  
Per XXX annos  
Doctrina sustulit  
Eloquentia illuminavit.

There is another inscription which might be written upon marble, but no lapidary is needed to carve the legend deeper than it will be engraved in its simple truth in the memory of this and succeeding generations.

Filius patre dignus  
Novangliæ  
Primam medicinæ scholam  
Per XL annos  
Ingenio ornavit,  
Celebritate illustravit ;  
In omne ævum  
Munificentia amplificavit.

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The office which has been thus filled would call for all the strength of the strongest to do it justice. I can only promise to devote my best efforts to its duties, and trust myself to the liberality of those who have welcomed me with such universal kindness to this responsible station. No motives could be stronger than those

which appeal to me to be worthy of my position. This stately edifice, standing upon the soil which the bounty of a generous friend of learning consecrated forever to the interests of medical education ; these abundant means for the illustration of every department of our science ; the inspiring remembrance of all that has been accomplished by those who have gone before us ; the fair promise which is dawning from the future, and can only be clouded by negligence or incapacity, are all motives to hopeful exertion. In this University I received my first medical instruction from the lips of those who are to be my fellow-laborers ; here I first learned the rudiments of the branch I am now to teach ; here I first listened to the accents of that consummate master of our science, whose lessons of wisdom have grown more precious to me with each advancing year ; and if it shall please a kind Providence to grant me life and the free use of my faculties, here I will labor, faithfully and kindly to instruct those who are to be my pupils, to enlarge the usefulness of this institution, to justify the confidence with which I have been honored, and to merit, in some humble measure, the gratitude of those who are to come after me.







